

# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office  
3310 El Camino Avenue, Suite 130  
Sacramento, California 95821-6340

IN REPLY REFER TO:

1-1-98-I-1604

September 3, 1998

Mr. Paul Brunner, Director  
Environmental Management  
SM-ALC/EM  
5050 Dudley Boulevard., Suite 3  
McClellan AFB, California 95652-1389

Subject: Stream Channel Cleaning Along Don Julio and Magpie Creeks, McClellan  
Air Force Base, Sacramento County, California

Dear Mr. Brunner:

The Service has reviewed the information regarding impacts to federally listed giant garter snake (*Thamnophis gigas*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), and vernal pool invertebrates (*Branchinecta lynchei* and *Lepidurus packardii*) and their habitats that McClellan Air Force Base (AFB) provided in your letter dated April 30, 1998. U.S. Fish and Wildlife Service and McClellan AFB staff have conducted site visits to Don Julio and Magpie Creeks on and off McClellan AFB, and have discussed compensation for effects of unauthorized channel cleaning operations using a track-mounted excavator which was operated by McClellan AFB personnel starting in October 1997, as well as effects to vernal pools caused by stranding a truck in a vernal pool in the spring of 1998. Impacts to resources on the base from unauthorized creek cleaning include the destruction and clearing of 3.046 acres of riparian vegetation and 1.793 acres (6,400 feet) of creek beds, the fill of 0.672 acre of freshwater emergent wetland and 0.158 acre of vernal pool, and the destruction of 34 elderberry plants with a total of 117 stems of at least 1 inch in diameter or more at ground level. The 1998 truck stranding affected 0.058 acre of vernal pools.

The draft mitigation plan submitted by McClellan for these impacts to federally listed species and their habitats utilized insufficient mitigation ratios that did not adequately address temporal impacts resulting from the unauthorized channel cleaning. The Service proposes that McClellan AFB mitigate for the impacts to federally listed species and their habitats in relationship to the magnitude of impacts to federally listed species and their habitats. Mitigation will consist of on-site restoration to the extent possible, supplemented by the use of mitigation banks or other off-site areas suitable for restoration, preservation, and creation of habitats for each of the three federally listed species. The mitigation is described below and summarized in Table 1.

#### *Valley elderberry longhorn beetle*

The impacts to valley elderberry longhorn beetle habitat were the destruction of 34 plants with a total of 117 stems. The mitigation impacts can combine on-site and off-site measures but will in either case include removal of side castings, and planting 117 elderberry seedlings and 117 native seedling shrubs on site. In addition, the Air Force will create additional beetle habitat in accordance with Service guidelines at either 5:1, 6:1, or 7:1 depending on location of the creation site.

#### *Vernal pool habitat*

Impacts to vernal pools include both the damage from the truck incident (0.058 acre) and the fill of vernal pools (0.158 acre) from the stream channel clearing, totaling 0.216 acre. McClellan AFB will mitigate by removing the side castings from the vernal pools and restoring 0.216 acre of vernal pool habitat on site. In addition, the Air Force will preserve vernal pools at 4:1, 5:1, or 6:1, and create vernal pools at 3:1, 4:1, or 5:1, depending upon whether preservation and creation sites are on- or off-site. If the Air Force chooses not to create vernal pools, the option exists to preserve additional vernal pool acreage at 10:1, 11:1, or 12:1 depending on site location.

#### *Giant garter snake habitat*

Impacts to giant garter snake habitat were calculated to be 58.77 acres and will be mitigated on site by restoring 58.77 acres of habitat. Depending on how much more habitat is available for restoration on site, the Air Force will restore up to another 58.77 acres. Optionally, the Air Force may choose off-site restoration in which case restoration will be accomplished at 3:1 and will total 176.31 acres, consisting of 1/3 aquatic habitat (58.77 acres) and 2/3 upland habitat (117.54 acres).

The following table details the proposed mitigation:

**Table 1**

**MITIGATION FOR THE UNAUTHORIZED STREAM CHANNEL CLEARING  
AT McCLELLAN AFB**

<b>Valley Elderberry Longhorn Beetle</b>		
impact= 34 elderberry plants with 117 stems> 1 inch in diameter		
<b>ON-SITE</b>	<b>BANK OFF-SITE</b>	<b>NON-BANK OFF-SITE</b>
On-site restoration (1:1)	On-site restoration (1:1)	On-site restoration (1:1)
remove side castings and plant 117 elderberry seedlings and 117 native shrubs	remove side castings and plant 117 elderberry seedlings and 117 native shrubs	remove side castings and plant 117 elderberry seedlings and 117 native shrubs
PLUS	PLUS	PLUS
Creation @5:1 = 585 stems, on 4.85 acres	Creation @6:1 = 702 stems, on 5.82 acres	Creation @7:1 = 819 stems, on 6.79 acres

<b>Vernal Pool Habitat</b> (vernal pool fairy shrimp and tadpole shrimp)			
impact= 0.158 acre channel clearing 0.058 acre truck incident 0.216 acre			
	<b>ON-SITE</b>	<b>BANK OFF-SITE</b>	<b>NON-BANK OFF-SITE</b>
<b>Restoration</b>	On-site restoration (1:1)	On-site restoration (1:1)	On-site restoration (1:1)
Subtotal	0.216 acre	0.216 acre	0.216 acre
<b>Preservation</b>	preservation @4:1	preservation @5:1	preservation @6:1
Subtotal	0.864 acre (0.216 x 4)	1.08 acres (0.216 x 5)	1.296 acres (0.216 x 6)
<b>Creation</b>	creation @3:1	creation @4:1	creation @5:1
Subtotal	.648 acre (0.216 x 3)	.864 acre (.216 x 4)	1.08 acre (.216 x 5)

**Table 1 (cont.)**

<b>Vernal Pool Habitat</b> (vernal pool fairy shrimp and tadpole shrimp) (cont.)			
Subtotals			
Restoration	0.216 acre	0.216 acre	0.216 acre
Preservation	0.864 acre	1.080 acres	1.296 acres
Creation	0.648 acre	0.864 acre	1.080 acres
Totals	1.728 acres	2.160 acres	2.592 acres

Optionally, if creation is not part of mitigation,			
<b>Restoration</b>	On-site restoration (1:1)	On-site restoration (1:1)	On-site restoration (1:1)
Subtotal	0.216 acre	0.216 acre	0.216 acre
<b>and Preservation</b>	preservation @ 10:1	preservation @ 11:1	preservation @ 12:1
Subtotal	2.160 acres (.216x 10)	2.376 acres (.216x 11)	2.592 acres (.216x 12)
Totals	2.376 acres	2.592 acres	2.808 acres

<b>Giant Garter Snake</b>		
impacts=6,400 linear feet of creek beds		
<b>ON-SITE</b>	<b>BANK OFF-SITE</b>	<b>NON-BANK OFF-SITE</b>
On-site restoration (1:1) restore 200 feet along each side of creek channel 6,400 linear ft. X 200 ft. X 2= 2,560,000 sq. ft. + 43,560 sq ft./ac = 58.77 acres of habitat (includes aquatic and upland)	NOT applicable	On-site restoration (1:1)
PLUS any additional available restoration on-site up to another 58.77 acres	NOT applicable	@ 3:1= 176.31 acres of which 1/3 is aquatic (58.77 acres) 2/3 is upland (117.54 acres)
Total (58.77+58.77) 117.54 acres		Total 176.31(58.77+117.54)

**SUMMARY TABLE FOR MITIGATION**

On-Site at McClellan AFB	Bank Off-Site	Non Bank Off-Site
<b>VELB</b>		
on-site restoration	on-site restoration	on-site restoration
plant 117 elderberry shrubs	plant 117 elderberry shrubs	plant 117 elderberry shrubs
plant 117 native shrubs	plant 117 native shrubs	plant 117 native shrubs
creation @5:1 = 585 stems	creation @ 6:1 = 702 stems	creation @ 7:1 = 819 stems
<b>Vernal Pool Habitat</b>		
Restoration, on-site: 0.216 acre	Restoration, on-site: 0.216 acre	Restoration, on-site: 0.216 acre
Preservation @4: 1 = 0.864 acre	Preservation @5: 1 = 1.08 acre	Preservation @ 6:1 = 1.296 acre
Creation @3:1 = 0.684 acre	Creation @4:1 = 0.864 acre	Creation @5:1 = 1.08 acres
or optionally if no creation,	or optionally if no creation,	or optionally if no creation,
Restoration, on-site: 0.216 acre	Restoration, on-site: 0.216 acre	Restoration, on-site: 0.216 acre
Preservation @10:1 = 2.16 acres	Preservation @11:1 = 2.376 acres	Preservation @12:1 = 2.592 acres
<b>Giant Garter Snake</b>		
Restoration, on-site 1:1 equals 58.77 acres (aquatic and upland)	NOT APPLICABLE	Restoration, on-site 1:1 equals 58.77 acres (aquatic and upland)
Plus any additional up at least 58.77 acres (aquatic and upland)	NOT APPLICABLE	Plus @ 3:1 = 176.31 acres (1/3 aquatic, 58.77, and 2/3 upland, 117.54)

The Service appreciates McClellan AFB's desire to reach a satisfactory resolution for appropriate mitigation for effects to federally listed species. We recommend a future meeting with you to finalize the mitigation plan that is being developed. Please contact us when you have arranged a meeting to complete resolution of this matter and so that the needed restoration work can be completed this year.

If you have any questions regarding this letter, please contact Ken Fuller or Jan Knight of my staff at (916) 979-2120.

Sincerely,

David L. Harlow  
Acting Field Supervisor

cc: Julie Hornstein, Region 2, California Department of Fish and Game  
Elizabeth White, U.S.E.P.A.  
Tom Coe, U.S. Army Corps of Engineers  
William Crooks, Regional Water Quality Board